

AF/2824

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re: Pat.Appn. Ser. No. 10/037,251

Art Unit 2824

Filed 1/4/02

Exr. L. Evanisko

Inventors Hougham et al.

Atty. Dkt. No. YOR920010020US1

For: MULTILAYER ARCHITECTURE FOR MICROCONTACT PRINTING STAMPS

### **EXPRESS MAIL CERTIFICATE**

Commissioner for Patents P.O. Box 1450 Alexandria, Va.22313-1450

Sir:

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1 page

Reply Brief on Appeal

pages - 3 copies

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Commissioner for Patents P.O. Box 1450 Alexandria, Va.22313-1450

Respectfully submitted,

Alvin J. Riddles

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#### TRANSMITTAL LETTER

Commissioner for Patents P.O. Box 1450 Alexandria, Va.22313-1450

Sir:

Transmitted herewith is a REPLY BRIEF in three copies, in response to the 2/24/06 EXAMINER'S ANSWER in the, under appeal, above identified application, wherein prosecution has been reopened, grounds have been narrowed, new rejections have been made and are addressed herewith in this reply brief.

Respectfully transmitted,

Min & Problem 4/29/06 Alvin J. Riddles

Reg.No. 17862



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For: MULTILAYER ARCHITECTURE FOR MICROCONTACT PRINTING STAMPS
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

REPLY BRIEF ON APPEAL

In view of examiner's withdrawl position in the 2/24/06 Answer (hereinafter Answer) the remaining items at issue are considered to be,

Claims 1 - 10 stand rejected under 35USC112 as being indefinite, with the exception that concern involving the terminology stiffness, flatness, porosity, adhesion enhancement and wettability enhancement, has been withdrawn;

Claims 1 - 5 and 7 - 9 stand rejected under 35USC102 as being anticipated by the Blees et al reference (US6,739,255); and,

Claims 6 and 10 stand rejected under 35USC103 as being unpatentable over the Blees reference 6,739,255 in view of the Kumar reference 5,512,131.

Considering the indefiniteness rejection of claims 1 - 10

Appellants consider the invention to be a tool structure or stamp that is useable in the established field or art of microcontact printing or ultrafine resilient stamping. In this art the stamp tool has a stamping surface and some resiliency. The tool is used in the precision transfer of monolayer quantities of etchant resistant or seed catalysis materials. In this art porosity and wettability are

properties useable to retain a material that is being transferred and to get a material being transferred to stick. Such properties are well known and discussed in the art.

The claims are of the ex parte Jepson type.

The supporting comments of the rejection on pages 6 - 8 of the Answer are in the form of extrinsic evidence, opinion only, followed by a unilateral determination that the claims are indefinite which is considered to be insufficient under the law.

The subject of judicial construing of claim coverage has recently been addressed in Phillips v

AWH Corp 415F3d1303, 75USPQ2d1321 (CAFC 2005), where, the full contribution of all
elements of communication such as the specification, drawings, and other claims are required for
a dispositive determination of claim coverage.

It is appellants' position that claim content and interpretation must be done, element for element using the intrinsic evidence of the entire content of the specification and drawings for support of any dispositive determination of indefiniteness.

In the following pages a claim for claim correlation is provided between the claim language, the drawings and the specification for all the claims involved.

1. 1. In microcontact printing wherein Drawing	Specification			
Figs 1 - 3	-			
an electronic circuitry pattern on the surface of an Fig. 1 at A	Page 4 line7			
2 elastomeric stamp member is operable in a transfer elements 10 -	13			
of a further processing responsive				
material, to a surface of a substrate, surface 11 substrate	trate 12			
4 the improvement comprising:				
said elastomeric stamp member having a surface region layer 1	3			
of a material imparting to said				
6 stamp member at least one of the properties of	Page 5 lines 1 - 11			
adhesion and wettability enhancement				
7 of the material of said circuitry pattern	Page 6 lines 1 - 15			
to said surface region, and,				
8 said elastomeric stamp member further having				
at least one subsurface region, each said elements 21,23,24				
9 subsurface region being of a material imparting				
a particular physical property to said				
stamp member.				
1 2. The microcontact improvement of claim 1 wherein	Page 6 lines 3 - 14			
said at least one subsurface				
2 region, is a single region that imparts the bulk property of stiffness				
to said stamp				
3 member.				

1	3.	The microcontact improvement of claim 1 wherein	Drawing Figs 1 - 3	Specification
said at least one subsurface layer 13				
2	reg	ion, is a single region that imparts the bulk property	of	Page 5 lines 1 -11
wet	tabili	ty enhancement to said		Page 6 lines 1 -15
3	3 stamp member.			
1	4.	The microcontact printing improvement of claim	2 wherein	
ano	ther r	egion of said at		
2	lea	st one subsurface regions, imparts the property of po	rosity,	Page 5 lines 1 - 11
and	is po	sitioned between		
3	sai	d surface region and said stiffness bulk property imp	arting region.	
1	5.	The microcontact printing improvement of claim	3 wherein	
anot	her re	egion of said at		
2	lea	ast one subsurface regions, imparts the property of po	orosity,	Pages 5 & 6
and is positioned between				
3	sai	d surface region and said wettability enhancement b	ulk property	
imparting region.				
1	6.	The microcontact printing improvement of claim 2 v	vherein	
said surface region is of the Pages 5 & 6				
2	m	aterial known as Dow Corning Sylgard siloxane 184		
and said subsurface region is of				
3	th	e material known as Dow Corning Sylgard siloxane	186.	

1	7. A microcontact printing stamp,	Drawing Figs 1 - 3	Specification
2	comprising in combination:	Fig 2	Page 7 line 7
3	a body having at least a layer imparting	to Page 8 line 15 substrate 12 surface 11	
a b	oulk stiffness and flatness physical property on		
4	which there is a stamping pattern supporting surf	ace,	
5	a stamping pattern layer positioned	pattern 10	Page 7 lines 7 - 15
on	said pattern supporting surface of said body,		
6	said stamping pattern layer including		
a:	negative relief stamping pattern in which the	10, 13	
7	spaces between the features of said		
st	amping pattern are the positive relief embossed		
8	portions of the final printing stamp,		
9	said stamping pattern layer further being		
of	an electronic circuitry processable material		
10	in which at least one of the physical		Page 7 line 15 to Page 8 line 6
pr	operties of adhesion enhancement and		to I age o mie o
11	wettability enhancement are imparted.		

1	8. The microcontact printing stamp member	Drawing Figs 1 - 3	Specification	
of cla	Pages 5 - 8			
2	of a specific physical property imparting materia	1		
positi	oned between said stamping			
3	pattern layer and said layer of bulk stiffness			
and w	ettability enhancement physical			
4	property imparting material.			
1	9. The microcontact printing stamp member	Figs 1,2,3	Pages 5 - 9	
of cla	im 8 wherein said physical property			
2	imparted by said layer of a specific physical property			
mater	ial is the physical	elements 14 &25		
3	property of porosity.			
1	10. The microcontact printing stamp of claim 7	wherein Figs 1 - 3	Pages 5 - 10	
said l	ayer of a bulk stiffness and			
2	wettability enhancement physical property impa	arting material,		
is the material known as				
3	3 Dow Corning Sylgard siloxane 186 and the material of said			
stamping pattern layer is of				
4	the material known as Dow Corning Sylgard s	iloxane 184.		

Considering the Claims 1 - 5 and 7 - 9 rejection under 35USC102 as being anticipated by the Blees et al reference (US6,739,255).

It is submitted that the Blees reference bears only a superficial relervance to this invention It is considered to be teaching only that physical channels may be used to carry printing liquid.

It is appellants' position that the criteria for anticipation are very precise, and fall under the rule that every limitation must be involved and that every limitation must be used in the same way.

Appellants claims are considered to distinguish by having superimposed layers in the stamp and thus the Blees reference does not teach a critical limitation.

Considering the 35USC103 rejection of claims 6 and 10 as being unpatentable over the Blees reference 6,739,255 in view of the Kumar reference 5,512,131.

It is submitted that the teaching of the two references does not add up to the invention. It is considered that the Blees channel liquid delivery to the stamp surface and the Kumar self assembled layer in the stamp does not teach appellants invention of superimposed layers in a microcontact printing or ultrafine resilient stamping tool providing a stamping surface with some resiliency useful in the precision transfer of monolayer quantities of etchant resistant or seed catalysis materials. It is appellants' position that the general state of the art is that while stamp tools are available art the concept of having the advantages of superimposed property imparting layers in a stamp has not appeared heretofore.

It is respectfully urged that the claims are simple structure in this art, that they distinguish over the art yet they convey the novel concept and that concept can be practiced through the structural terminology used in the claims as they are.

Respectfully submitted,

Alvin J. Riddles

9/24/06

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